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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,971

04/19/2006

Motokuni Ishitani

Q91859

1635

23373 7590 09/24/2008  
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EXAMINER

MC GINTY, DOUGLAS J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/24/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,971	<b>Applicant(s)</b> ICHITANI ET AL.	
	<b>Examiner</b> DOUGLAS MC GINTY	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3-24-08, 3-10-08, 5-31-06, 3-15-06, &amp; 12-22-05</u> .      | 6) <input type="checkbox"/> Other: _____                          |



## DETAILED ACTION

### *Election/Restrictions*

Claims 10 and 11 have been cancelled as being drawn to nonelected Group II, a method of forming a film, there being no allowable generic or linking claim. The election was made **without** traverse in the reply filed on August 12, 2008.

The Group I claims, 1-9 and 12-20, are pending and examined herein.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyake (WO 03/028143) in view of Knapczyk (Kirk-Othmer Encyclopedia of Chemical Technology, December 2000, pp. 1-17).

This rejection is based on WO 03/028143 which is in Japanese. The citations below are to the English equivalent, US 2004/0260020.

Miyake teaches a binder resin containing a modified polyvinyl acetal resin with 1-20 mol% ethylene as a structural unit (Abstract). Ethylene forms structural unit (3) in present claim 1. The reference also teaches coating materials and conductive pastes [0013, 0025, 0033, 0034]. Saponification and acetalization degrees are taught as well [0035, 0036].

Although Miyake teaches polyvinyl acetal resin in general, it does not appear to expressly teach structural units (1), (2), and (4).

Nevertheless, Knapczyk teaches and documents the well-known fact that structural units (1), (2), and (4) are present in typical polyvinyl acetals (p. 2).

It would have been obvious to one of ordinary skill to provide a binder resin with polyvinyl acetal and ethylene (3) as a structural unit, as taught by Miyake, in which the structural units (1), (2), and (4) are also present, as taught and documented by Knapczyk, because both references pertain to the polyvinyl acetal resin art and Knapczyk documents the well-known structural units in polyvinyl acetals.

With respect to claims 4-6 and 13-18, Miyake teaches viscosity in general but does not appear to teach the particular measurement of viscosity as claimed. Still, the reference teaches an ethylene modified polyvinyl acetal. Compositions with the same components are presumed to have the same or very similar properties. MPEP 2112.01, II.

With respect to claims 7, 8, 9, 19, and 20, Miyake teaches conductive pastes, ceramic powder, and organic solvents [0025, 0152, 0153]. Various ceramic powders and glasses may be added as well [0146, 0147].

### ***Secondary Considerations***

The examples at pp. 25-43 of the present application have been carefully reviewed. However, the evidence of unexpectedly better results is not considered to be commensurate with the scope of the presently claimed invention. MPEP 716.02(d).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS MC GINTY whose telephone number is (571)272-1029. The examiner can normally be reached on M-F, 830-500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOUGLAS MC GINTY/  
Primary Examiner, Art Unit 1796